

## **Remarks**

Claims 1-12 are pending in the application. Claims 1-12 are rejected. All rejections are respectfully traversed.

This is a second request for reconsideration.

Applicants also note that the current reference (Benveniste 7,136,361) is similar to the previous reference (Benveniste 7,180,905), now moot, see first twelve figures.

2. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Benveniste (US 7,136,361).

Claimed is broadcasting periodically a first beacon in a first signal format, the first beacon defining a start of a *contention period* and a start of a *contention free period*, the contention free period for communicating data between the terminals.

Applicants specifically note the start of the *contention period* (CP) and the start of the *contention free period* (CFP).

The Examiner states:

broadcasting periodically a first beacon in a first signal format, the first beacon defining a start of a contention period and a start of a contention free period, the contention free period for communicating data between the terminals (see col. 8, lines 54-64);

In other words, the Examiner merely recites the limitations of what is claimed, and references column 8, lines 54-64.

With all due respect, what is claimed is *not* described at column 8. Instead, Benveniste describes: “During the operation of two overlapped cells, the method transmits a first beacon packet including the intra-cell *contention-free (CFP) period* value (the increment to the NAV) and inter-cell *contention-free period (CFP)* value (the CFTR).”

In other words, Benveniste describes the start of two contention free periods, one for intra-cell and one for inter-cell. Claimed is the start of a contention period and a contention free period.

Benveniste can never anticipate the invention.

Also claimed is broadcasting a second beacon in a second signal format during the contention free period, the second beacon defining the start of the contention period and the start of the *contention free period*.

Note again the *contention period* and the start of the *contention free period*.

Benveniste does not describe starts contention periods in first and second beacons.

The Examiner again merely recites the Applicants' limitations, without considering what Benveniste actually describes. With all due respect, the Examiner is wrong again. Benveniste describes: "the second access point transmits its second beacon packet including its second *contention-free period* values of NAV and a second IBNAV, to the second member stations in the second cell."

At column 8, the IBNAV value is the inter-cell contention free period (CFTR) transmitted by the first access point, see: "When the second access point in the second cell receives the CFTR packet it stores the a copy of the inter-cell contention-free period value as the IBNAV."

So in both cases, Benveniste only transmits the start of *contention free periods* (CFP).

Clearly, what Benveniste describes is not what is claimed. Thus, with respect to the second claim step, Benveniste cannot anticipate the inventions.

Applicants also note, that the Examiner does not indicate where Benveniste uses a different signaling formats for the first and second beacon signals. In any case, for the Examiner's benefit, Applicants have thoroughly studied Benveniste and cannot find different signaling formats for beacon signal.

Applicants also note that the contention free periods transmitted by the first and second Benveniste beacons are different. The claimed contention period and the contention free period are the same.

With respect to claim 10, the Examiner should first refer to the above. It is also noted that the construction of claim 10 has elements that are not in claim 1, and the Examiner's "similar limitations" is improper.

Specifically, claimed is a first terminal communicating according to a first signal format; and a second terminal communicating according to a second signal format. Nowhere does Benveniste describe terminals and beacons with different signaling formats. In contrast, the network of Benveniste demands that all terminals signal in the same format, otherwise the network would become inoperable.

Also, note that claimed is a coordinator configured to broadcast periodically a first beacon in the first signal format, the first beacon defining a start of a contention period and a start of a contention free period, and configured to broadcast a second beacon in the second signal format during the contention free period, the second beacon defining the start of the contention period and the start of the contention free period.

The claimed beacons are broadcast by the *same* coordinator. As stated above, the two beacons of Benveniste are transmitted by *different* access points. Again, none of the claimed limitations are described by Benveniste, and Benveniste cannot anticipate the invention.

With respect to claim 2, claimed is the method of claim 1, in which the contention free period includes assigned and unassigned slots, and in which the second beacon is broadcast during time periods of unassigned slots.

In the rejection, the Examiner again merely recites the claimed limitations, and recites an apparently random portion of Benveniste.

Referring to Claim 2, Benveniste also teaches the contention free period includes assigned and unassigned slots, and in which the second beacon is broadcast during time periods of unassigned slots (see col. 14, lines 33-37).

With all due respect, this is completely wrong again. What Benveniste describes is: “Similar to a station's Network Allocation Vector (NAV), a first IBNAV is set at the second access point to indicate the time the medium will be free again. Also similar to the NAV, the first IBNAV is decremented with each succeeding slot, similar to the decrementing of other backoff times.”

There is nothing here about assigned and unassigned slots.

With respect to claim 3, claimed is broadcasting a plurality of second beacons in a plurality of different signal formats during the contention free period. Needlessly, to say the Examiner just recites what is claimed, and points to a random bit of Benveniste that has nothing to do with signaling formats:

the decrementing of other backoff times. When the second  
access point receives a new IBNAV representing the first  
cell's contention-free period value, then the second access  
40 point must respect the IBNAV value and delay transmitting  
its beacon packet and the exchange of other packets in the  
second cell until the expiration of the received, IBNAV.

With respect to claim 4, claimed is a method in which the first signal format  
is predetermined. The Examiner is advised to read column 7:

In accordance with the invention, the method assigns to  
the first access point station, a first inter-cell contention-free  
period value, which gives notice to any other cell receiving  
the beacon packet, that the first cell has seized the medium 45  
for the period of time represented by the value. The inter-cell  
contention-free period value is deterministically set. Further

There is nothing about signaling formats there.

With respect to 5, claimed is a first signal format is based on a priority of  
terminals in the heterogeneous network. Benveniste describes:

The invention disclosed broadly relates to telecommuni-  
cations methods and more particularly relates to Quality-of- 5  
Service (QoS) management in multiple access packet net-  
works. Several protocols, either centralized or distributed  
can co-exist on the same channel through the Tiered Con-  
tention Multiple Access method. The proper arbitration time  
to be assigned to the centralized access protocol must satisfy 10  
the following requirements: (i) the centralized access pro-  
tocol enjoys top priority access, (ii) once the centralized  
protocol seizes the channel, it maintains control until the  
contention-free period ends, (iii) the protocols are backward  
compatible, and (iv) Overlapping Basic Service Sets (OB- 15  
SSs) engaged in centralized-protocol can share the channel  
efficiently.

Priority based signaling formats are not described.

With respect to claim 6, claim a signal format is based on a bandwidth of terminals in the heterogeneous network, see:

number of tags. The utilization of bandwidth, and hence total throughput, would be greater as shorter deferral time intervals leave more of the frame time available for transmission.  
35 Moreover, an efficient (i.e., compact) tag re-use plan will decrease the likelihood of contention between the centralized protocol beacons of interfering BSSs contending for access and E-DCF traffic. This problem is mitigated by using the HCF time in the HNAV, but re-use will reduce the  
60 length of this time.

Bandwidth based signaling formats are not described.

With respect to claim 7, claimed are slots are assigned according to a bandwidth of terminals in the heterogeneous network, see:

Because of the fixed CFB length requirement, whereas the Tier I approach delivers regularly-spaced CFBs, using it  
15 alone, without a Tier II protocol, results in inefficient utilization of the channel. The same fixed bandwidth allocation to each BSS gives rise to situations where channel time allocated for a CFB to one BSS may be left idle while another BSS is overloaded. The Tier II protocols provide for  
20 dynamic bandwidth allocation among BSSs.

Bandwidth based slots are not described.

With respect to claim 8, claimed are slots are assigned according to a priority of terminals in the heterogeneous network, see claim 5 above.

With respect to claim 9, claimed are terminals of the heterogeneous network share a single frequency band. Benveniste describes a fixed bandwidth, see Wikipedia:

Claimed - Frequency: a measure of the number of occurrences of a repeating event per unit time.

Benveniste - Bandwidth: a rate of data transfer, or bit rate, measured in bits per second.

With respect to claim 11, claimed is a coordinator that can communicate with any terminal in the network in any predetermined signal format. There is nothing about signaling formats at column 7 of Benveniste.

With respect to claim 12, claimed is a first and second terminal that communicate indirectly with each other via the coordinator terminals. The Examiner has confused terminals communicating indirectly with directly as in Benveniste:

can also have an independent configuration where the  
mobile stations communicate directly with one another,  
30 without support from a fixed access point.

Applicants again remind the Examiner, as in the first Request for Reconsideration, that MPEP 2131 explicitly states that in order to anticipate a claim under 35 U.S.C. 102(e) “**each and every element as set forth in the**



**claims** must be found in the prior art reference. The identical invention must be shown in as complete detail as is contained in the ... claim.”

The Examiner’s rejections ignore the explicit limitations as recited in all of the claims.

With all due respect to the Examiner, Applicants believe that this particular Office Action is again totally inadequate.

For each rejection, the Examiner merely recites the claimed limitations, and then cites some random bit of the prior art that may or may not include a word of the claim.

No effort is made to tie the reference to the specifics of what is claimed. There is no analysis, just the claim language, and a pointer to some random section of the reference.

Random sections from the prior art reference are cited, with no attempt to connect what is described in the prior art with what is claimed. The prior art is consistently misconstrued. This type of office action fails to bring the application forward in prosecution.

M.P.E.P 707.07(g) states: “Where a major technical rejection is proper, it should be stated with a *full development of reasons rather than by a mere conclusion coupled with some stereotyped expression.*”

Applicants assert that Benveniste does not describe any of the steps in any of the claims.

It is believed that this application is now in condition for allowance. A notice to this effect is respectfully requested. Should further questions arise concerning this application, the Examiner is invited to call Applicants' attorney at the number listed below. Please charge any shortage in fees due in connection with the filing of this paper to Deposit Account 50-0749.

Respectfully submitted,  
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